

Jan: 9th 1829

No 45 Lane

316 Market
An inaugural dissertation for examination,
for the Degree of Doctor of Medicines
in the University of Pennsylvania;

by

Passed March 2^d

as follows.

1829

Appl. Essay on Dyspepsia.

by

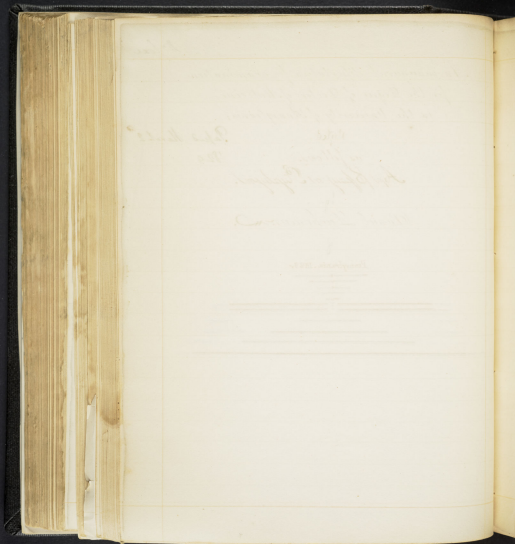
David Larchmont.

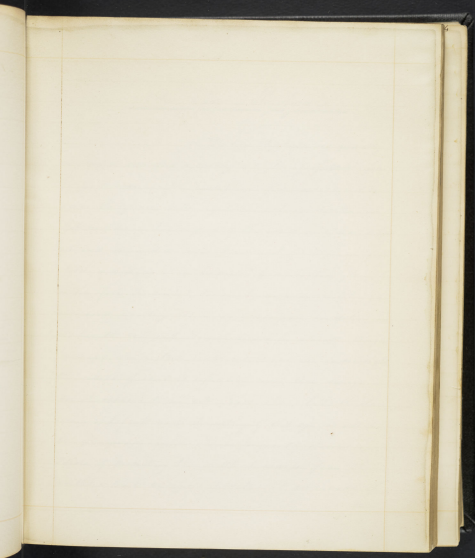
of

Pennsylvania. 1829.



judicious -

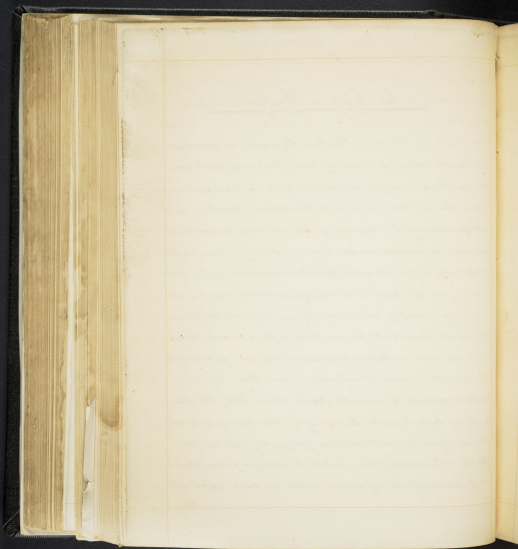






Ap. Essay on Ptyalism.

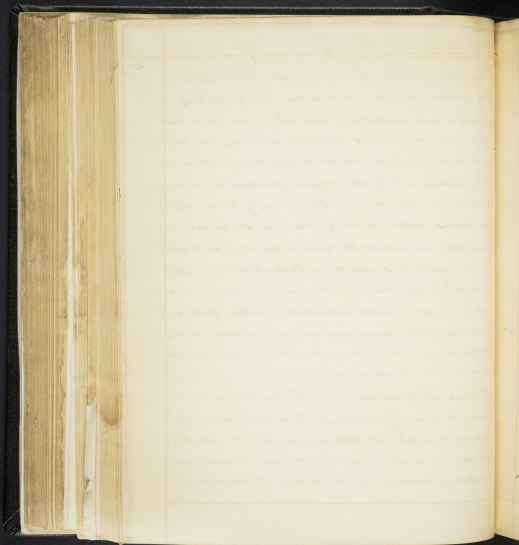
"The term Ptyalism, as generally employed, expresses a spitting and flowing off saliva from the mouth, occurring in consequence of morbid action upon the glands, belonging to the salivary system. — Yet, considering the import of the word in a more liberal and expanded sense, I am inclined to, someone with Good, and define it as he does, "the involuntary flow of saliva from the mouth"; therein, by no means, involving an increased secretory action, as a necessary condition, as has been the case with Harper and a few others; — though perhaps, even in these instances, it has been an oversight, the result of want of reflection, more than design. — For it appears to me, with Good, that both the drooping of Infants and droivelling of old age, as well as the disagreeable habit we so frequently observe in Idiots, of permitting the spittle to escape from their mouths, without an effort to retain it, come, each of, them.



them entirely within the signification of the term
 "Pharyngitis" derived as it is from the *Gon. P. Pharyngitis*
 to spit: and certainly it will not be contended, that
 that these peculiarities lose their existence, only as
 a consequence of an increased quantity of saliva
 being thrown out by the proper glands, - nor on the
 other hand, denied that they are owing to one of
 two causes - either defect of power in the labial
 muscles, as happens the case in old age, or want
 of will, as it is found in Infants, &c. - But
 enough of definition - in this case at least, it is
 not of great or vital importance, whether opinion
 prevails, right having formed and advanced one,
 I thought it incumbent on me, to exhibit the grounds
 upon which it was built.

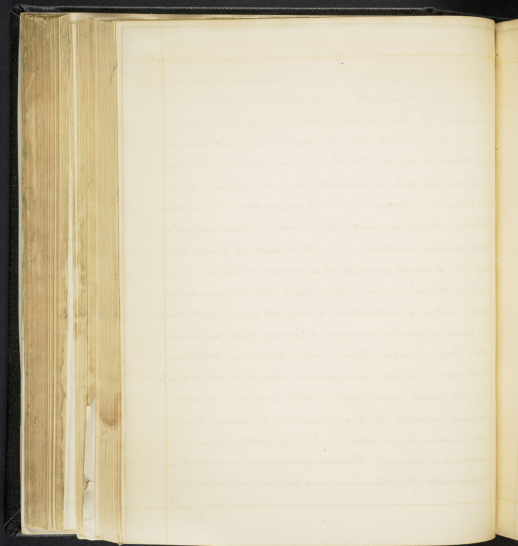
"*Salivina*", of the saliva. - - The saliva is a fluid
 secreted from the blood by three distinct sets of
 glands, situated at different parts of the mouth,
 clasped as a whole, as the salivary glands: and
 consisting annually of the Parotid, Sublingual and

Lab. Buccillary



Sub Maxillary Glands - - - Chemists differ in their accounts as to the matter obtained by them in analyses of this fluid. According to Berzelius, it consists of but little else but distilled water. - but seven, in one thousand parts. Dr. Brande was enabled, by means of the volta's pile, to separate from it, Alkamen and an alkali. - according to Professor Fave, it contains Alkaline Muriates - Lactate of Soda - mucus and some other animal matters. - - "It is said by Good to contain a small quantity of Phosphate of Lime. - - -

Pure Saliva" is a slightly viscid fluid, destitute of smell, and of a white colour or slightly tinged with blue. Its specific gravity appears to be very little greater than that of water. "It is neither acid nor alkaline, and has, therefore, no effect on blue vegetable colours. Why the alkali contained in this secretion should impart nothing of its characteristic nature to it, nor induce any change in vegetable blues, is accounted for by Brande, by supposing its combination with the Albuminous matter, in which state it



it loses its property of affecting vegetable colours. —
 Credit is given it for being highly solvent; but whether
 its solvent power be really greater than the solvent
 power of so much water of an equal temperature, and
 as fitly applied, is, I think, not yet satisfactorily
 ascertained: — along with the Mucous of the Buccal
 and Salivary Glands, it serves the purpose of lubrica-
 ting the mouth. As an acid to the food in its passage
 to the Stomach, it is of material importance; and once
 there, it enables the gastric juice more readily and
 universally to intermix with it, and of course more
 energetically to exercise its peculiar action upon it.
 This it does by reason of its previous solution of the
 substance taken, and by serving as a medium for
 the diffusion of the gastric juice throughout the stomach.
 In its natural and healthy state it is specifically inert;
 but under a state of disease we learn that it has ac-
 quired a different character and become poisonous —
 such, also, has been the case when the person or creature
 has been under the influence of violent rage. — — —



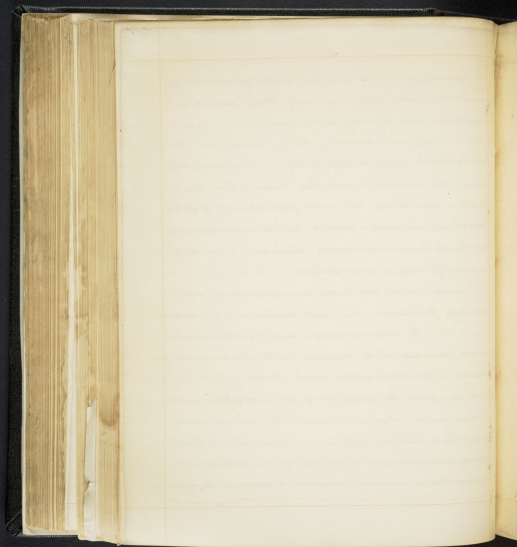
The quantity of Saliva secreted by the glands in a given time, when under no more than ordinary excitation, has been variously estimated. Most rates it at one pound in twelve hours, but Dr. Astruc & Robart suppose that amount to be yielded, only, during the period of twentyfour hours - which last, has been considered the more just estimate of the time. At times, and under particular circumstances, it is much more abundantly eliminated - even to the amount of several pints daily -

The causes which excite the secretory action of the Salivary Glands are many, and various in their nature.

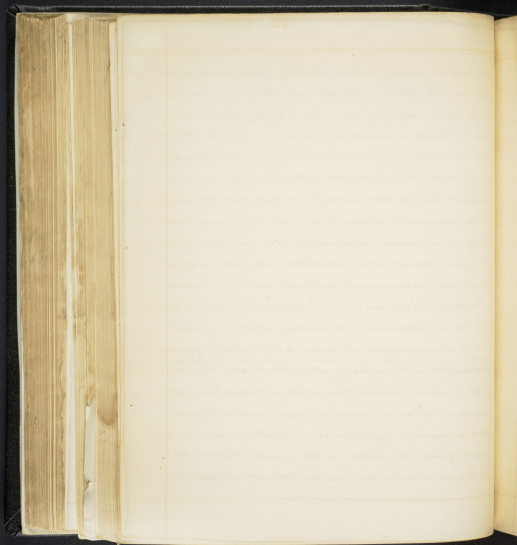
— — — The most universal and healthy cause, is the stimulus of the natural need of the system, causing a constant elaboration, for the fulfilment of the purposes to which it is designed. This stimulus is powerfully illustrated during the mastication of any hard and dry substance; and its effects, by the concomitant increase in the flow of the Saliva. — —

Next to this in point of proximity to nature, is the sight

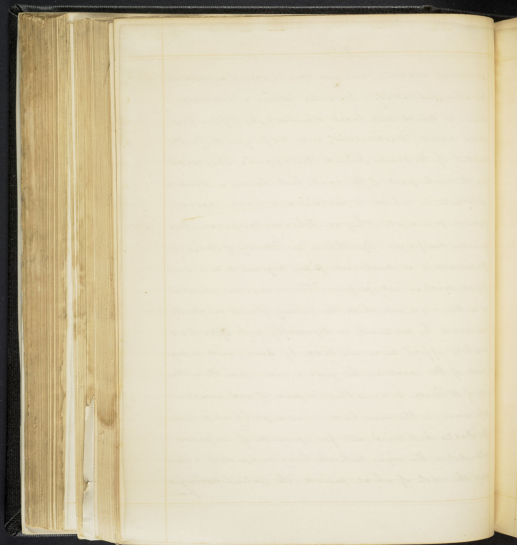
* During a week two ounces and more have been discharged, during a single day.



or smell of savory food. Irritating poisons, as nages
 have a little effect. But there are others more artificial,
 which deserve attention, not only in a 'Physiological',
 but likewise a practical point of view; for they,
 not infrequently, are productive of such distress
 to the patient, and trouble to the Practitioner. —
 Amongst them as first in rank we class mercury and
 its preparations. Under these there are many articles
 which are supposed, occasionally to be possessed of
 the same power, when exhibited internally, such as
 'Benedict's', 'Antimony Tartarizatum', and in accordance
 with Professor Chapman, 'Arsenic', 'Copper', 'Lead', 'Bupris', &c.
 — the parent's Stimulants — the mineral acids, and above
 all the 'Plygala Knege'. But, says he, the effect is ^{partial} ~~causing~~
 so powerful is the sympathy which this creates, that in
 order to procure salivæ, 'Thénard' says, 'Professor Gavi', ad-
 vices us to place a famished dog, (his mouth mu-
 stled or gagged) near a piece of smoking roast
 meat, — from the fumes of the animal thus cruelly
 tantalized, the fluid in question, copiously flows. —

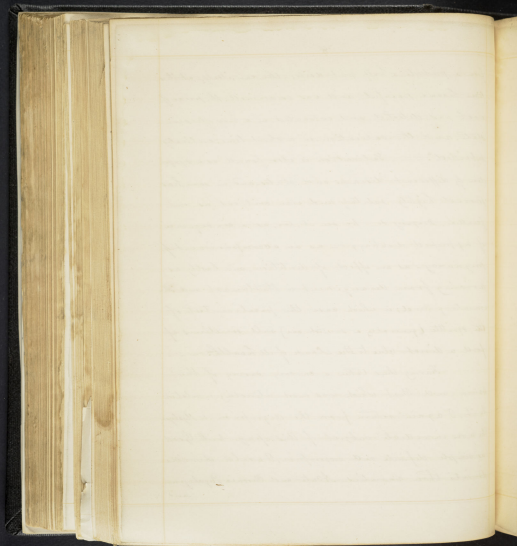


exceedingly uncertain, and even when it occurs and gives no curative indication. — In order, follows a numerous train of direct and local stimulants, by Hoffman Chapman named "Hasticatorist"; and too frequently, for the credit of the science, termed "dislagues". They consist for the most part of the root, bark, leaves or produce of plants, in which is contained a warm, acrid juice or principle. They are Tobacco, Merganser, *Rhus copallina* *benzifragia*, *Pyrethrum* or Pellitory of Spain — *Imperatoria* or Mastwort, *Piper nigrum* &c. — — — Simple mechanical power. "The mechanical irritation of another organ, with which the salivary Glands are closely connected by continuity or sympathy, will often lead to a like effect," so we are told by Good, and in support of this doctrine, he gives a case upon the authority of St. Ruell. It runs thus, "a piece of wool, accustomed to be worn in the ear had imperceptibly slid into the Meatus Auditorius, and for upwards of two years, stimulated the organ without being suspected: during the whole of which period, the patient discharged for

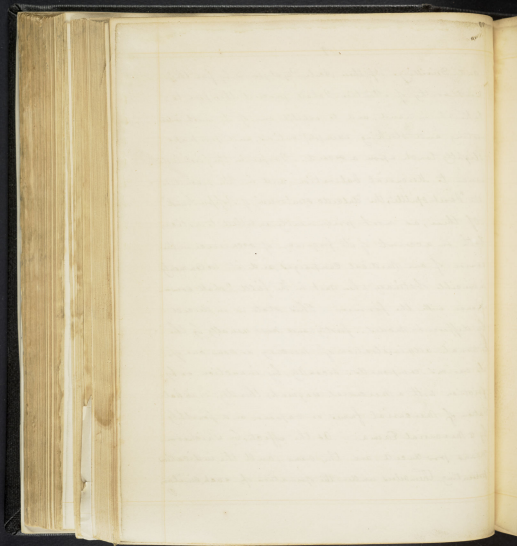


from a pint to a half pint daily, - the can itself, at the same time became painful and was examined, the piece of wool was detached, and extracted in a very offensive state, and the salivation in a short time, entirely subsided: - Salivation is also found as a symptom of different diseases and states, and in some cases proved highly salutary and even critical, as in Jaundice, Dropsy &c. We see it, too, as a consequence of suppressed discharges - as an accompaniment of pregnancy - as an effect of dentition, and lastly, as arising from derangement in the stomach and the alimentary canal; in which case, the peculiar taste of the spittle (generally a sweetish one) will sometimes afford a direct clue to the cause of ill health. -

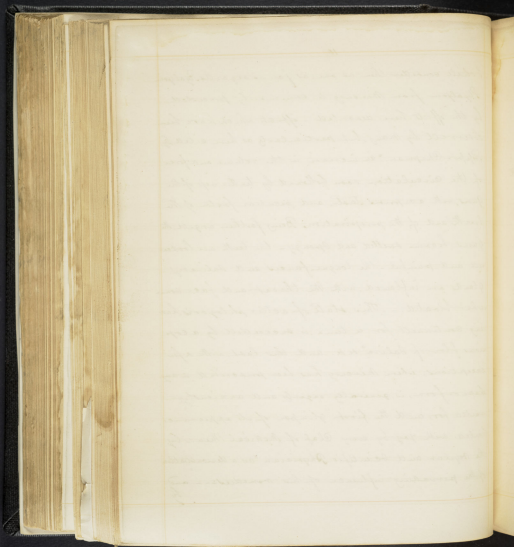
Having thus taken a cursory survey of the Saliva, and that which was most interesting in relation to it, I again return from the digression, to Pyalgia the more immediate subject of this essay. With Good as simple - definite and expressive, I would divide it, into three varieties - Acute and Chronic Pyalgia -
and



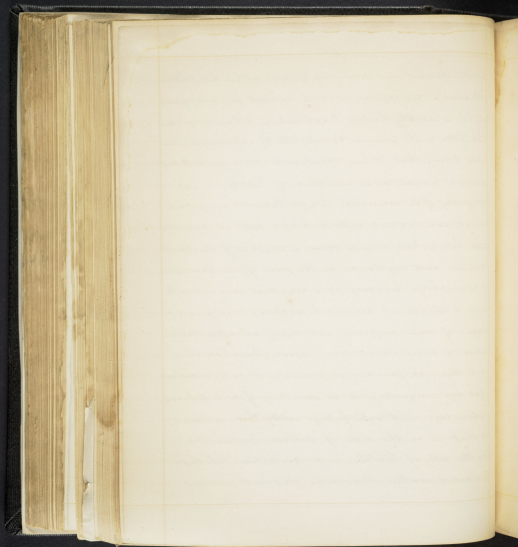
and Drizzling. Of these Scule Pysalyon is by far the most worthy of attention. I shall proceed therefore to take it in hand, and to exhibit one of its most interesting and striking exemplifications, and perhaps slightly touch upon a second. - I refer, in the first instance to Mercurial Salivation, and in the second, to the "Austopitite", the *Salivatio spontanea* of Boissier-De-Mont. Of these, as most prominently entitled to notice, both on account of its frequency of occurrence in the course of our Medical Campaigns, and its too commonly invincible obstinacy when met in the field, I shall commence with the former. - This state is induced by different modes. firstly, and most usually by the internal administration of Mercury, or some one of its various compounds. secondly, by inunction, or by friction with a mercurial unguent. thirdly, by inhalation of mercurial fumes or vapors, and fourthly by a mercurial Ecema. - At the effects, by which or on means produced, are the same, and the indication presenting themselves under the operation of each, similar.



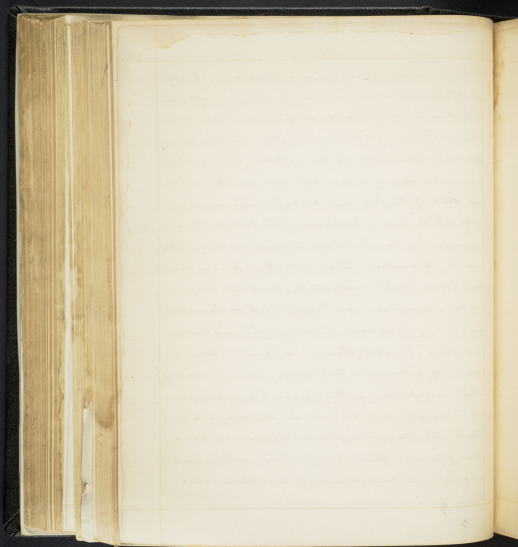
I shall consider them as one, as far as regards Iodogen.
 Iodogen from Mercury is commonly preceded
 by the effects here described - effects which have been
 observed by many, but particularly as here cited by
 Phipson-Chapman. "an increase in the volume and force
 of the circulation, soon followed by tenderness of the
 gums, with a corrupted taste, and peculiar foetor of the
 breath and of the perspiration, Being farther urged, the
 gums become swelled and spongy - the teeth are loose
 red and painful - the tongue, fauces and Salivary
 glands are inflamed, with the throat and face some-
 what bloated. - This state of active phlogosis, hav-
 ing continued for a time, is succeeded by a cop-
 ious flow of Saliva &c. and this last, with a few
 exceptions, when Mercury has been prescribed in any
 shape or form, is, generally, eagerly and anxiously
 waited for, and the first glimpse of its appearance
 hailed with joy by every Class of Medical Men - by
 the regular and Scientific Physician, as a demonstration
 of the prevailing influence of his remedies - and
 by



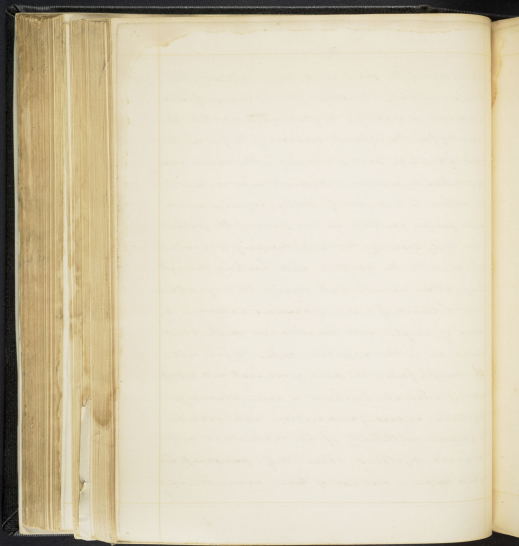
by the ignorant and presuming Empiric, as his never-failing
 "Passora". - but eagerly as it is assailed for, and joyously
 as it is assiduously hailed, I acknowledge, I have as yet seen
 but little in its power calculated to exhilarate - nor
 will I deny, that it has occasioned me much, and deep
 anxiety, as well as an abundance of trouble. - The
 frequency of its occurrence is well known to every one
 at all conversant with medicine; and it is equally
 well known, that it will occur, in despite of the utmost
 caution and vigilance on the part of the Practitioner
 who employs Mercury as a remedial means; and to
 such a person it cannot be unknown how great a
 share of pain-suffering and misery are attendant
 upon a severe salivation; upon the whole then,
 with these, or mercurial salivation, I cast a distrust-
 =ful eye - regarding it as something of most dubious
 advantage, and with feelings altogether inclined
 to class it on the side of disease, rather than
 as the ally of health; - as a condition to be depre-
 -cated, rather than to be desired! -



The symptoms which generally follow in the train of Rhytism, I shall here briefly note, and afterwards cite one, or more cases. Its first, and most prominent, we have an almost unswerving hawking and spitting, occasioned by the irritation of a constant accumulation of slimy-adhesive spitte - a bloated state of the face and throat - a soreness of the mouth and a tenderness of the fauces, the one leaving it a painful task to masticate, and the second to swallow. These, with the cupreous taste and foetid breath constitute the principal stand in the list of complaints for the first week, or thereabouts, as it may be a case of more or less violence. And here, I would observe, we have the common results of a common salivation. - But, instead of a halt, or cessation in the disease, let us suppose it to progress, and we have an opponent to contend with, that will put into requisition all our strength, and skill, and medical attainments! - we have a development of symptoms, which,
independent

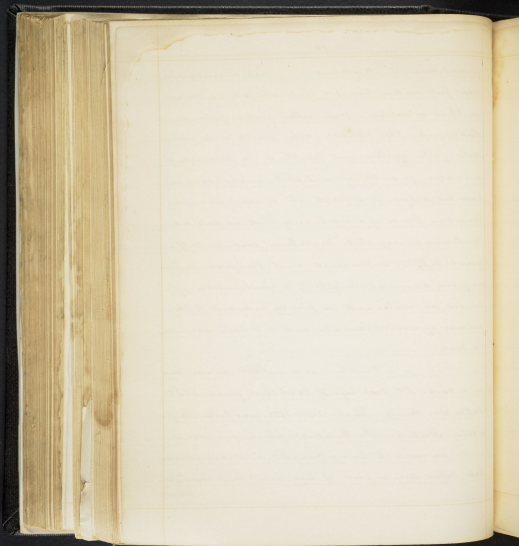


independent of the peculiar circumstances of the case, an intensely interesting - the discharge of saliva is increased in quantity - a glutinous ^{mass} is secreted, apparently from the inflamed surfaces of the fauces, tonsils, etc., which, partly dissolving in the saliva, adds to its already adhesive property and renders it tenacious to a degree of texture, requiring severe and painful exertion on the part of the patient (here truly deserving the name) necessary to remove it - which, with the spitting and hawking, during the day, allows no rest, and during the night, leads that obtained, of a very precarious nature - a sense of weight and constriction of the chest comes on - the appetite takes its fare well - the strength fails - the mind grows weak and depressed. (if a female, hysteria, in some, alarming hysteria ensues -) emaciation approaches - a general imitability of the intellectual and organic systems shows itself - perspiration and a bad temper - distinct of them around - and
 of



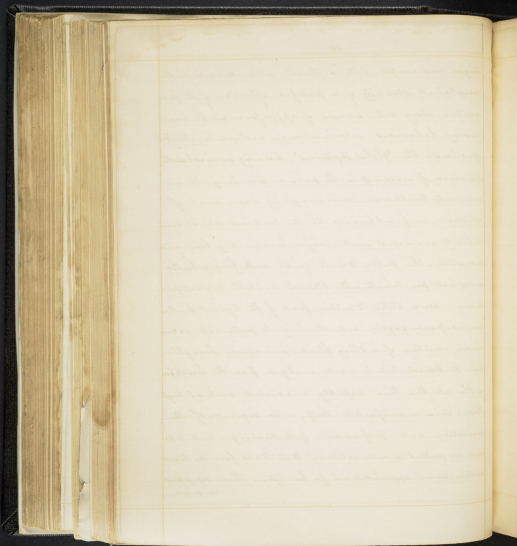
of confidence in attendants - the sick one imagining
 they feel neither care for their comfort, nor concern
 for their situation - pain, either neural or paralytic -
 sleepiness - the stomach, owing partly to the general
 state of the system, and partly to the presence of
 a large quantity of vitiated, unwholesome, and
 nauseous saliva, is affected with spasms, vomiting
 comes on - food of almost every kind, as well as
 medicine, is rejected. "Noble's Term" presents itself -
 great debility supervenes, and the poor sufferer,
 worn down at length by a combination of
 causes so untoward, is finally reduced to the
 extreme of wretchedness! - and I believe, sometimes
 to death!

----- I will here, as a suitable place, bring
 in a case. Mrs. Best wife of Jacob Best, farmer, N. E. of
 Northampton County, Penna. Sept 1828, was taken ill of
 a cold, attended with the usual febrile symptoms,
 and previous to having sought medical advice,
 had taken three or four of Lewis' Patent Antibilious Pills
 which

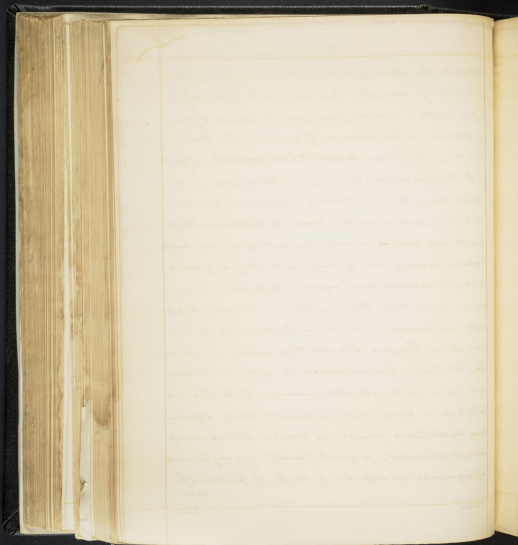


^{which} operated handsomely upon the bowels. In the course
 of a few days, I was sent to visit the woman, and
 found her labouring under a "menstrual ptyalgia".
 For this the usual constitutional and local
 remedies were prescribed. Upon my next visit
 I quickly learned they were of little avail; and
 that, instead of a bettered condition, I had to
 combat with an aggravated one. Again I prescrib-
 ed, but it was again with a similar sort of
 success. She now began to grow seriously ill - many
 of the symptoms, enumerated in the preceding
 sketch, made their appearance - the spitting was
 almost without ception, and the discharge very
 profuse. - there was a constant effort to loosen, and
 throw out the glutinous secretion, already mentioned
 as adhering to the fauces &c. - and so pertinaciously
 didn't cling to its hold, that she was frequently
 obliged to yield to the more fatigue, occasioned
 by her exertion; and this, was before the approach
 of ability. Her appetite now became impaired - the
 tongue

tongue was coated with a thick yellow covering—the
 complained steadily of a painful affection of the p^{re}-
 cordia, along with a sense of oppression at the breast,
 causing laborious respirations—violent hysterical
 affections—the "Gloved Hysterics" becoming an inexhaust-
 ible source of mischief—the patient grew languid and
 extremely troublesome, ever imagining some want of
 attention, or of adherence to the medical directions—
 debility increased—the tongue became dry, brown and
 scorched—the pulse small, quick and frequent 130
 or 140 beats per minute—the stomach irritable to a distressing
 degree—scarce able to retain food of the lightest kind—
 an incessant gagging and straining to vomit, with occas-
 ional vomiting of a stinky fluid, principally brought
 from the stomach, but in part, emulged from the bronchiae.
 — The at this time rapidly emaciated, and at length
 Testa's Fever manifested itself, in consequence of the
 irritation and profusion of the discharge, and order
 would my patient to such extremity, that I was forced to ad-
 vance serious apprehensions for her life.— These symptoms
occurred

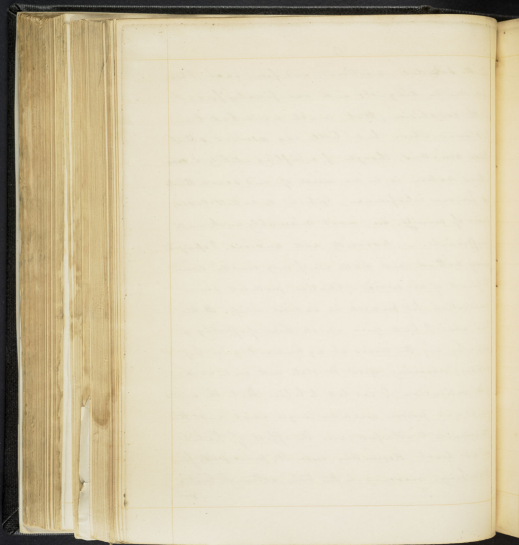


occupied the space of eight weeks, before I had the
 pleasure of seeing them give way - and, I am safely
 ascert, that I seldom experienced a greater degree
 of pleasure in the recovery of any patients than in
 this one instance. - as yet I have neglected to speak
 of the Anæsthetics - I have done so, for three reasons, firstly
 because every one is intimately acquainted with the
 whole list - and a second - because of their exceedingly
 limited and partial success when employed, and lastly
 because, in every case of real need, they only serve
 to excite reaction and regret. And here let it
 suffice to say, that they consist in a sort of, as-
 ticles and moans and plans bearing with from
 each other. They are "blood-letting - purging - eme-
 tic - blistering - free exposure to a dry and cool
 air, laying aside all the coverings of the face -
 sulphur in large, and in minute doses - Opium -
 as constitutional means - as local - blisters - sub-
 vacuities - sinapisms - a great variety of gargles - and
 astringent - as an infusion of bark - of galls - of

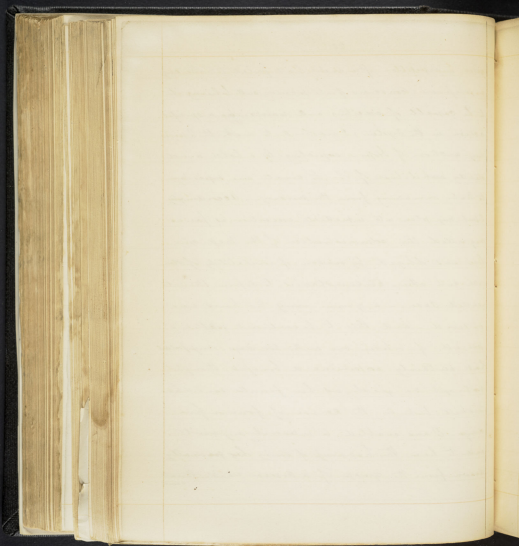


sage of lime water - solution of borax - mineral acids
 in a state of dilution, salusly solution of sugar of lead,
 and as a very neat prescription - a decoction
 of green tea, sweetened with honey. - the solution
 of the sugar of lead stains the teeth as are told
 by Rufford Chapman, in whose work on Ther-
 apautics may be found the whole of this list
 - There is indeed an ample table of contents, and
 much room for choice - such as the inexperienced
 reader would laugh upon, in joy of confidence
 in the nervous held to his assistance - but the cool
 and very practitioners will, from their very stand-
 point, find ground for distrust; and I have been
 taught, that he who relies least upon their opi-
 nions, will suffer least disappointments - In the case
 given, I had an opportunity of making trial,
 and did make trial of each and every means
 and plan and article, with the exception of
 the solution of sugar of lead - each, in its turn
 was resorted to, until I had left none untried
 still but has been advertised - and much has been said in favor of the ^{little book} ~~book~~ ^{which} ~~book~~
 upon.

in the schedule, mentioned, and from each, I turned
 me in disgust, and was finally forced
 to the conclusion, that much more had been
 bestowed, where but little was deserved, & that
 these something, though of a trifling utility, & even
 when nature is in no need of, and scarce thanks
 as for, our interference, yet in decided cases,
 cases of severity, are most miserably weak and
 inefficient. - horrid and anxious, I employed
 every method, and made use of every remedy. Again
 I found of no service - Charles produced some
 palliation, but produced no radical relief. At this
 time, when I had given up all hopes of effecting a
 cure, by any the means at my command given by
 authors, reasoning upon the state and continuance
 of the delirium. I was led to believe that the original
 morbid poison could no longer exist, and that
 the results I witnessed, were the effect of habit
 or at least depending upon it principally, for
 their being. reasoning in this train, although I was
 given



given in repetition, after awhile, had failed to make any
 impression (conscious of its power, and believing it
 to be capable of exciting and maintaining a specific
 action in the system), I resolved to make the Quinine
 my anchor of Hope - expecting by a bold and
 steady exhibition of it, to create an impression
 to that remaining from the Mercury. - Accordingly
 I put my plan into immediate execution, as far as
 regarded the administration of the Medicine -
 but was obliged by reason of irritability of the
 stomach and other circumstances, to lessen the inte-
 ended dose. - a grain every two hours was
 ordered - and this to be continued, after a
 period of between one and two days - my patient
 had certainly experienced benefit though
 not yet so great, as her friends could have
 wished, but in the course of four or five
 days - I was enabled to intermit my visits,
 and to have the happiness of seeing her gradually
 drawn from the grasp of a disease which ^{seemed}



ward her disposition and slowly recruiting herself
from its ravages. - Nevertheless this great good
was brought about by the operation of the Quinine,
I neither can, nor will, attribute upon myself to apart.
but so much pleased was I with the idea,
and result, that I should most certainly again
recort to it, should opportunity offer. I am
undecided as to its value as a remedy in such
cases, nor is it reasonable to form an opinion
decidedly upon the event of one solitary, long
isolated case. This was the last of the kind under
my care previous to coming to the City. - - -

- I will here subjoin a few more short cases.

M^{rs} Kimball - Belknap St. Northampton, Penna.

August, 1828. Was attacked with a slight Colic.

took one grain of opium, with four of Calomel.

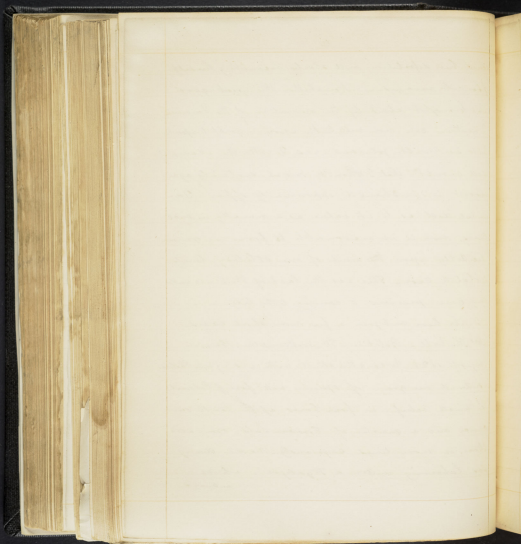
obtained relief: in four hours after took one

ounce and a quarter of Epsom Salt. operated

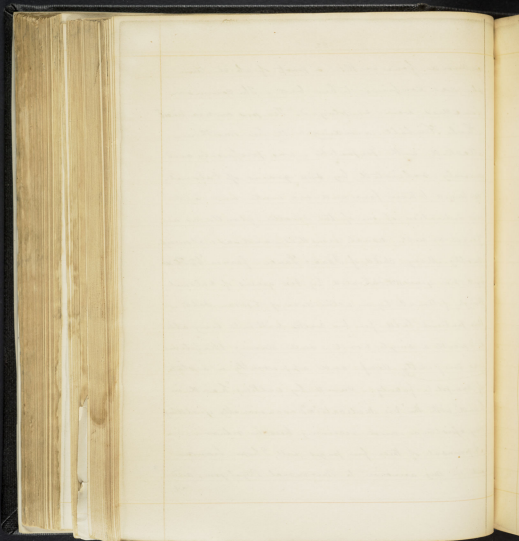
three or more times copiously. Next day

was labouring under a 'Rigalgon' which -

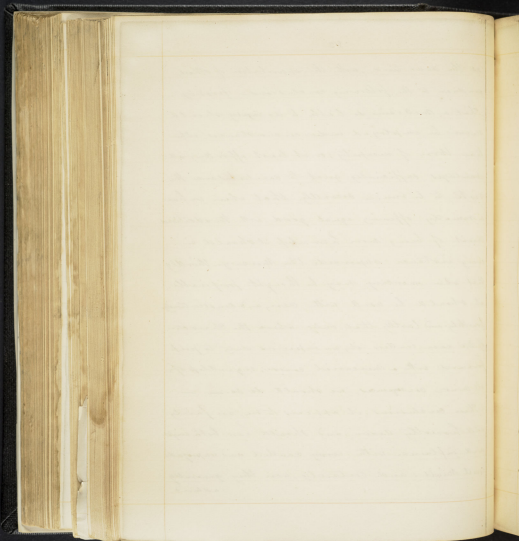
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cultured four weeks. a part of which time she was confined to her bed - The common remedies were employed. "Temper anxia micit" Phoebe Kimball, residing with her mother - attacked with Hepatitis - was profusely and severely salivated by six grains of Calomel. continued between four and six weeks, and left an indication of one of the smaller glands, as a "foreign body". usual remedies - and as a last resort. Lastly, Mary Child of Isaac Laver, farmer St. C. 220 aged six years, 1838, salivated by six grains of Calomel though followed by an active dose of Epsom Salts - this patient laid for two weeks without being able to speak a single word - and during that time was perfectly deaf, and apparently in a state of complete fatuity. - cured by walking, "hand in hand", with the "vis medicatrix", occasionally yielding my assistance, and receiving hers in return. A perusal of these few pages will I hope, bear me out in my assertion to Memorial Physician, and at



at the same time, with the approbation of others,
 continue to the following conclusions. firstly—
 That a medicine so liable to do injury, should
 never be employed under circumstances, other
 than those of necessity; or at least offering ad-
 vantages sufficiently great to counterbalance the
 risk to be run. — secondly. that when we have
 a remedy offering equal good, with the additional
 merit of being more harmless, it should in
 every instance supersede the Mercury. thirdly
 that when mercury may be thought preferable.
 it should be used with care, and conscientiously,
 fourthly and lastly, that, only, where the character
 of the case renders it, an imperative duty to push
 forward with a mercurial course, regardless of
 all minor consequences, we should do so. —
 These conclusions, it appears to me, are fairly
 and honestly drawn, and should have both weight
 and influence with every candid and unprejudiced
 mind: and certainly were they generally
 adhered to

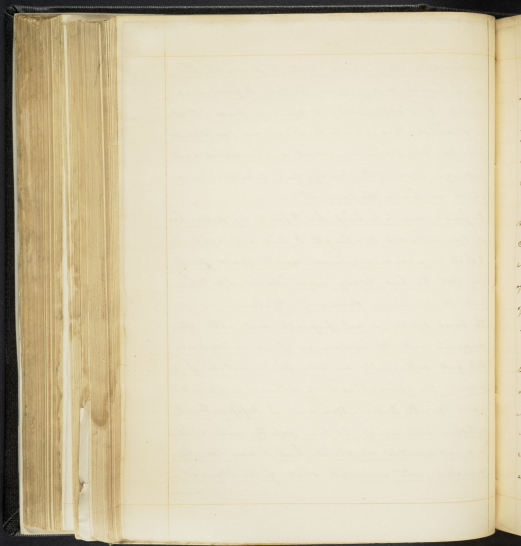


adhered to, they would tend to diminish the
sum of human misery in no trifling degree:—
indeed it is astonishing to common sense, that
we should thus wantonly throw our families, our
friends, our patients, ourselves, characters and
feelings, upon the mercy of a monster, over
which we have no control!—

To finish, and to be brief—for I find my paper has
already extended to a length I did not wish it.
I shall in a concise manner quote Good for the
very little he has to say upon "Sweet-Spitte"—
and the remaining forms of Stysylon. —

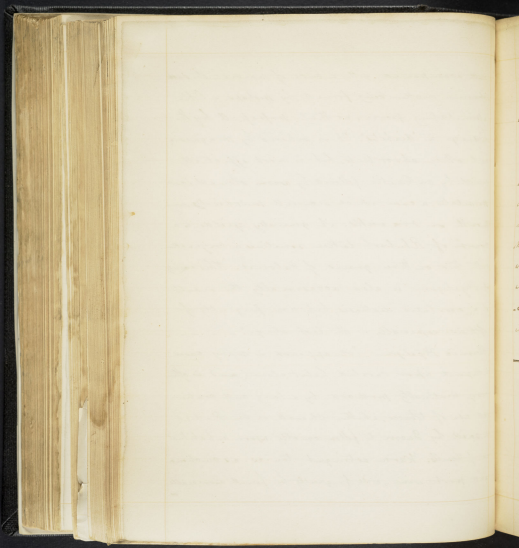
The Sweet Spitte, is not frequently met with, when
compared with the occurrence of its antecellent
It is quite sufficient so to render a notice of it
superfluous. Its characteristic is a "sweet and moistish
taste. It is the Salivary Spectrum of Professor Frank,
(as before mentioned). It may properly exist, at times
as an idiopathic complaint, but is more usually
connected with a morbid state of the Stomach—

and



and accompanied with a sense of heat in the back
 -achium matter being formed by, perhaps, a like
 assimilating power, as that proposed by the
 kidneys in 'diabetes'. It is subdued by Magnesia
 and other absorbents, but is most effectually
 cured by an Emetic, followed by warm stomachics.
 He relates a case which proved miraculously cured
 month or six weeks. It generally yields to a
 course of Rhubarb taken sometimes in conjunction
 with two or three grains of Calomel. This variety
 of Ptyalism is also occasionally the result
 of a scorbutic diathesis, but more frequently of
 Pthiasis, especially in the last stage. - - -

Chronic Ptyalism. "It appears in many cases
 to depend upon morbid habit alone, and is often
 very distinctly produced by a long and continu-
 ed use of tobacco, whether Chewed or smoked; it
 is said by Jassin to follow equally upon an habitual
 use of Squills. Warm astringent tonics, as Cinchona
 and port wine, will frequently be found serviceable.



local applications; or in the form of gargles; or a few drops of essential oil, particularly that of the eucalypt tree (*Malaleuca leucodendron*) may be taken four or five times a day, on a little sugar.

- "Swallowing. This species depended upon a sort of command over the muscles of deglutition: It is found in three states of life, among infants, before the will has acquired a power over the muscles of deglutition; in advanced life, in which the will has lost its power, and in Idiots who possess the power; but seldom or never exercise it. In the first case, time is the best Physician, in the two last, no Physician can be of any avail.

Pharynx.

Agard.

